

What is claimed is:

1. Apparatus for determining authenticity of a digital representation of an object,
the digital representation including embedded first authentication information and the
5 apparatus comprising:

a storage system in which stored second authentication information is associated
with stored reference codes; and

a processor which receives the digital representation and a reference code
associated therewith, the processor including

10 an authentication information reader and

the processor employing the reference code to retrieve the second authentication
information associated therewith from the storage system, employing the authentication
information reader to read the embedded first authentication information, and employing
the read first authentication information and the second authentication information to

15 determine authenticity of the digital representation.

2. The apparatus set forth in claim 1 wherein:

the reference code is included in the digital representation.

20 3. The apparatus set forth in claim 1 wherein:

a key is stored in the storage system and associated with the reference code; and

the processor further employs the reference code to retrieve the key; and
the authentication information reader uses the key to read the first authentication
information.

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4. The apparatus set forth in claim 1 wherein:

the second authentication information is based on semantic information contained
in the digital representation; and

the authentication information reader includes a semantic information reader and an authentication information maker,

the semantic information reader reading the semantic information from the digital representation and the authentication information maker producing the first
5 authentication information from the read semantic information.

5. The apparatus set forth in claim 1 wherein:

the processor is attached to a network, receives the digital representation from a source thereof via the network, and provides an indication of the authenticity of the
10 digital representation to the source.

6. The apparatus set forth in claim 5 wherein:

the source makes the digital representation from an analog form.

15 7. The apparatus set forth in claim 6 wherein:

the source associates the reference code with the digital representation.

8. The apparatus set forth in claim 7 wherein:

the source receives the reference code from a user of the source.

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9. The apparatus set forth in claim 6 wherein:

the analog form includes a security pattern;

the source reads the security pattern and associates the read security pattern with the digital representation; and

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the authentication information reader further processes the embedded first authentication information with the associated read security pattern to produce the read first authentication information.

10. The apparatus set forth in claim 5 wherein:
there is a plurality of the apparatuses in the network; and
a given one of the apparatuses uses the reference code to route the received digital representation and the reference code to another one of the apparatuses.

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11. The apparatus set forth in claim 6 wherein:
the embedded first authentication information is a digital signature embedded as a watermark in a graphic on the analog form.

10 12. Apparatus for checking the authenticity of an analog form, the analog form including embedded first authentication information and the apparatus comprising:
an analog form converter that receives the analog form and makes a digital representation of at least the first authentication information; and
a communications system,
15 the analog form converter employing the communications system to send the digital representation and a reference code to a verification system that employs the reference code and the first authentication information to determine whether the analog form is authentic and to receive a notification whether the analog form is authentic from the verification system.

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13. The apparatus set forth in claim 12 wherein:
the reference code is included in the digital representation.

14. The apparatus set forth in claim 12 wherein:
25 the reference code is sent in association with but not as part of the digital representation.

15. The apparatus set forth in claim 12 wherein:
the verification system employs the reference code to locate a key that is required to read the first authentication information.

5 16. The apparatus set forth in claim 12 wherein:
the verification system employs the reference code to locate second authentication information and additionally uses the second authentication information to determine whether the digital representation is authentic.

10 17. The apparatus set forth in claim 12 wherein:
the analog form converter analyzes the digital representation to determine whether the verification system can check the authenticity of the digital representation before sending the digital representation.

15 18. The apparatus set forth in claim 12 wherein:
the analog form includes an image in which the first authentication information is embedded.

20 19. The apparatus set forth in claim 18 wherein:
the analog form is a photo ID, the image is the photo ID's photo, and the reference code is an identification number for the photo ID.

25 20. A method of determining authenticity of a digital representation of an object, the digital representation including embedded first authentication information and the method including the steps performed in a data processing system of:
receiving the digital representation and a reference code associated therewith in the system;
using the reference code to retrieve second authentication information associated with the reference code;

reading the embedded first authentication information; and
employing the read first authentication information and the second authentication information to determine authenticity of the digital representation.